

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,444	09/12/2003	Gerrit de Wit	126474-2	7822
75	90 08/09/2005		EXAM	INER
Robert E. Walter			WARTALOWICZ, PAUL A	
GE Plastics				
One Plastics Avenue			ART UNIT	PAPER NUMBER
Pittsfield, MA 01201			1772	

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)			
	10/661,444	DE WIT, GERRIT			
Office Action Summary	Examiner	Art Unit			
	Paul A. Wartalowicz	1772			
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address			
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply - If NO period for reply is specified above, the maximum statutory period v - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). Status	36(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) day will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).			
1) Responsive to communication(s) filed on					
,	2a) This action is FINAL . 2b) This action is non-final.				
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims	•				
4) ☐ Claim(s) 1-10 is/are pending in the application. 4a) Of the above claim(s) is/are withdray 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-10 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/o	wn from consideration.				
Application Papers					
9) ☐ The specification is objected to by the Examine					
10)⊠ The drawing(s) filed on <u>12 September 2003</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.					
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).					
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.					
Priority under 35 U.S.C. § 119					
 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority application from the International Bureau * See the attached detailed Office action for a list 	s have been received. s have been received in Applicat rity documents have been receive u (PCT Rule 17.2(a)).	ion No ed in this National Stage			
Attachment(s)					
1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s)/Mail Date					
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 		Patent Application (PTO-152)			
S. Patent and Trademark Office		-			

the

Part of Paper No./Mail Date 080405

Application/Control Number: 10/661,444 Page 2

Art Unit: 1772

DETAILED ACTION

Claim Objections

1. Claim 2 is objected to because of the following informalities: The recitation "selected from " in line 2 is improper Markush language. Proper Markush language is "selected from the group consisting of". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "reinforcing agents" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Clarification and/or correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1772

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- 3. Claim 1, 2, 3, 4, 8, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams ('812) in view of Mori et al ('804).

As to claims 1 and 10, Adams teaches a pressurized container made of reinforced polyesters (col. 1, lines 10-11; col. 3, lines 49-50). Adams teaches that the containers can store pressurized gas which is defined as any mixture or material that, when enclosed in a container, has an absolute pressure exceeding 40 psi at 21.1 degree Celsius or has an absolute pressure exceeding 140 psi at 54.4 degree Celsius (col. 3, lines 5-8). Compressed gases include but are not excluded to oxygen and nitrogen (col. 3, line 13). Adams fails to teach a pressurized container wherein upon being filled with a liquid having a dissolved carbon dioxide content of about 0.4-0.6 wt % at an internal pressure of at least 1 bar, said pressurized container maintains a dissolved carbon dioxide content of at least 0.25 wt % after 0.5 year at a storage temperature of about 30 to 35 degree Celsius.

Art Unit: 1772

Mori et al., however, teaches a polyester bottle comprising polyethylene terephthalate which is well known for reduced permeability of gases such as oxygen and carbon dioxide (col. 1, lines 17-21). The primary reference, Adams, also teaches that containers such as vessels and bottles for pressurized gases are well known in the art to be made entirely of polymeric materials (col. 1, lines 7-11).

Mori et al. further teaches that polyethylene terephthalate is a widely used material for reducing permeability of carbon dioxide and oxygen in pressurized containers (carbonated drink bottles, col. 1, lines 22-23).

Therefore, one of ordinary skill in the art would have recognized that polyethylene terephthalate is used in the primary reference to reduce permeability of carbon dioxide in pressurized containers since both the primary and secondary reference, Mori et al., teache containers with pressurized gases for reducing permeability of pressurized gases.

Thus, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided a polyester bottle comprising polyethylene terephthalate in Adams in order to reduce permeability of carbon dioxide gas of the pressurized container as taught by Mori et al.

As to claim 2, Adams teaches reinforcing agents selected from glass or carbon fibers (col. 5, lines 21-22). All of the limitations of claim 3 are drawn to a process and are given no patentable weight because the subject matter being evaluated is the product. As to claim 4, Adams teaches a plurality of reinforcing strips attached to and reinforcing said container with each strip encircling the container in a hoop direction at

Art Unit: 1772

least once (filament winding of continuous fibers, col. 5, lines 30-32). As to claim 8, Adams teaches a pressurized container having a wall thickness of at least 0.2 mm (5-50 mils, col. 4, lines 64-65). As to claim 9, Adams teaches a pressurized container having a total liquid volume of at least 15 liters (5.5-31000 liters, col. 4, lines 45-48).

4. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams ('812) in view of Mori et al ('804) in further view of Duse ('763).

Adams and Mori et al. teach a pressurized container as described above.

As to claim 5, Adams and Mori et al. fail to teach a pressurized container wherein the reinforcing agents are glass fibers having a length of at least 0.5 cm.

Duse, however, teaches a reinforced polyester bottle with glass fibers having a length of at least 0.5 cm (0.5-2.0 cm, col. 3, lines 30-34) for the purpose of resisting fracturing during stretch-blow molding.

Therefore, it would have been obvious to one of ordinary skill at the time applicant's invention was made to have provided glass fibers having a length of at least 0.5 cm in Adams and Mori et al. in order to resist fracturing during the stretch-blow molding process as taught by Duse.

As to claim 6, Adams and Mori et al. fail to teach a pressurized container wherein the polyesters are reinforced by glass fibers in an amount of at least 20 wt% based on the total weight of said reinforced polyesters.

Art Unit: 1772

Duse, however, teaches a reinforced polyester bottle wherein said glass fibers are present in an amount of at least 20 wt% (1-60 wt%, col. 2, lines 45-46) for the purpose improving the deflection by heat of said fibers.

The deflection by heat of said fibers is important for applications such that require high temperatures such as heat sterilization or hot-filling (col. 2, lines 25-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided glass fibers in an amount of at least 20 wt% based on the total weight of said reinforced polyesters in Adams and Mori et al. in order to improve performance in high temperature applications as taught by Duse.

As to claim 7, volume % is taken to be approximately equal to wt %.

Therefore, Duse teaches the glass fibers amount in the range of about 1 to 50 volume % (1-60 wt% by weight of the combined weight, col. 2, lines 44-47).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. Wartalowicz whose telephone number is (571) 272-5957. The examiner can normally be reached on 8:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1772

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Paul Wartalowicz August 4, 2005

SUPERVISORY PATENT EXAMINER

8/8/05

Page 7